New Breed of Smart TV

Brittany Latawiec

March 28, 2012
This January Samsung released new smart TV models. Included is an integrated camera and two microphones with facial and voice recognition software. This enables the TV to track movement and recognize the viewer's face and voice and connect them to Samsung's cloud as soon as they enter the room.

Why would a television need these things?
This January Samsung released new smart TV models.
This January Samsung released new smart TV models. Included is an integrated camera and two microphones with facial and voice recognition software.
This January Samsung released new smart TV models.

Included is an integrated camera and two microphones with facial and voice recognition software.

This enables the TV to track movement and recognize the viewers face and voice and connect them to Samsungs cloud soon as they enter the room.
Smart TV with New Features

- This January Samsung released new smart TV models
- Included is an integrated camera and two microphones with facial and voice recognition software
- This enables the TV to track movement and recognize the viewers face and voice and connect them to Samsungs cloud soon as they enter the room
- Why would a television need these things?
Samsung is saying their new TV will give users a very personalized experience.
Full User Experience

Samsung is saying their new TV will give users a very personalized experience

- Different content is displayed depending on who is viewing the TV
Samsung is saying their new TV will give users a very personalized experience

- Different content is displayed depending on who is viewing the TV
- Automatic log in to websites, such as Facebook, and personalized channel selections are two selling points for the TV
Samsung is saying their new TV will give users a very personalized experience.

- Different content is displayed depending on who is viewing the TV.
- Automatic log in to websites, such as Facebook, and personalized channel selections are two selling points for the TV.
- Even the advertisements shown can be targeted to what the person is currently holding, such as beer or a magazine, or what is in the background.
This just screams privacy issues!
Scary!

This just screams privacy issues!

1. The camera cannot be disabled. There is no indication whether its on or off, such as a light.
This just screams privacy issues!

1. The camera cannot be disabled. There is no indication whether its on or off, such as a light
2. The microphone can only be disabled by software with no way to be certain its actually off
Scary!

This just screams privacy issues!

1. The camera cannot be disabled. There is no indication whether its on or off, such as a light
2. The microphone can only be disabled by software with no way to be certain its actually off
3. The TV automatically connects to the internet and Samsungs cloud
Scary!

This just screams privacy issues!

1. The camera cannot be disabled. There is no indication whether its on or off, such as a light
2. The microphone can only be disabled by software with no way to be certain its actually off
3. The TV automatically connects to the internet and Samsungs cloud
4. As of yet there is no privacy policy detailing how they will use their data released by Samsung, only a user agreement saying they are not responsible for improper use of their equipment
Samsung is currently developing an app that will allow remote access to the camera and microphone to give users the option of monitoring their home when away. The video feed will be accessible on anything with an internet connection capable of pulling it up, such as a smart phone. An IR blaster allows control of other electronic devices in the home. Third party apps also have access to the camera and microphone.
Samsung is currently developing an app that will allow remote access to the camera and microphone to give users the option of monitoring their home when away.
Samsung is currently developing an app that will allow remote access to the camera and microphone to give users the option of monitoring their home when away.

The video feed will be accessible on anything with an internet connection capable of pulling it up, such as a smartphone.
Samsung is currently developing an app that will allow remote access to the camera and microphone to give users the option of monitoring their home when away.

The video feed will be accessible on anything with an internet connection capable of pulling it up, such as a smart phone.

IR blaster allows control of other electronic devices in the home.
Samsung is currently developing an app that will allow remote access to the camera and microphone to give users the option of monitoring their home when away.

The video feed will be accessible on anything with an internet connection capable of pulling it up, such as a smart phone.

IR blaster allows control of other electronic devices in the home.

Third party apps also have access to the camera and microphone.
Implications

My question is, what ISNT implicated here?

- There is no claim that the data is encrypted
Implications

My question is, what ISNT implicated here?

- There is no claim that the data is encrypted
- If the user can gain remote access, why not a hacker or advertising company too?

Could this lead to other electronics being remotely controlled by outsiders?

What exactly is being uploaded to the Samsung cloud and how is it being stored and used?

Could the government potentially use these TVs to spy on the American people?

Samsung has yet to address any of these issues even though TVs are currently being sold
My question is, what ISNT implicated here?

- There is no claim that the data is encrypted
- If the user can gain remote access, why not a hacker or advertising company too?
- Could this lead to other electronics being remotely controlled by outsiders?
Implications

My question is, what ISNT implicated here?

- There is no claim that the data is encrypted
- If the user can gain remote access, why not a hacker or advertising company too?
- Could this lead to other electronics being remotely controlled by outsiders?
- What exactly is being uploaded to the Samsung cloud and how is it being stored and used?
Implications

My question is, what ISNT implicated here?

- There is no claim that the data is encrypted
- If the user can gain remote access, why not a hacker or advertising company too?
- Could this lead to other electronics being remotely controlled by outsiders?
- What exactly is being uploaded to the Samsung cloud and how is it being stored and used?
- Could the government potentially use these TVs to spy on the American people?
My question is, what ISNT implicated here?

- There is no claim that the data is encrypted
- If the user can gain remote access, why not a hacker or advertising company too?
- Could this lead to other electronics being remotely controlled by outsiders?
- What exactly is being uploaded to the Samsung cloud and how is it being stored and used?
- Could the government potentially use these TVs to spy on the American people?
- Samsung has yet to address any of these issues even though TVs are currently being sold
If there were good news...
If there were good news...

- Samsung has yet to release what OS the TV is running

Because of this, there are no known attacks as of yet. Once which OS is leaked, this could change. Existing hacks may be compatible. If not, new ones can, and we should assume, will be created.
If there were good news...

- Samsung has yet to release what OS the TV is running
- Because of this, there are no known attacks as of yet
If there were good news...

- Samsung has yet to release what OS the TV is running
- Because of this, there are no known attacks as of yet
- Once which OS is leaked, this could change. Existing hacks may be compatible. If not, new ones can, and we should assume, will be created
Some Existing Security Flaws

According to Kaspersky Lab there were 178 new families of malware and 5,225 new viruses discovered for Android devices in 2011 alone.

Android is already running on many smart TVs and is an excellent candidate for the OS running on the new Samsung models.

An iOS researcher discovered malware that can be embedded in an iOS app and cause the device to execute unapproved commands.

Using BackTrack software and a wireless adapter capable of packet injection, wireless networks with WEP and WPA encryption can be hacked.
Some Existing Security Flaws

- According to Kaspersky Lab there were 178 new families of malware and 5,225 new viruses discovered for android devices in 2011 alone.
According to Kaspersky Lab there were 178 new families of malware and 5,225 new viruses discovered for android devices in 2011 alone.

Android is already running on many smart TVs and is an excellent candidate for the OS running on the new Samsung models.
Some Existing Security Flaws

- According to Kaspersky Lab there were 178 new families of malware and 5,225 new viruses discovered for android devices in 2011 alone.
- Android is already running on many smart TVs and is an excellent candidate for the OS running on the new Samsung models.
- An IOS researcher discovered malware that can be embedded in an IOS app and cause the device to execute unapproved commands.

Using BackTrack software and a wireless adapter capable of packet injection wireless networks with WEP and WPA encryption can be hacked.
Some Existing Security Flaws

- According to Kaspersky Lab there were 178 new families of malware and 5,225 new viruses discovered for Android devices in 2011 alone.
- Android is already running on many smart TVs and is an excellent candidate for the OS running on the new Samsung models.
- An IOS researcher discovered malware that can be embedded in an IOS app and cause the device to execute unapproved commands.
- Using BackTrack software and a wireless adapter capable of packet injection wireless networks with WEP and WPA encryption can be hacked.